Amendments to the Claims

1. (Original) A method for direct transformation of a host cell comprising the steps:

(a) generating partially overlapping intermediate fragments by polymerase chain reaction, said partially overlapping intermediate fragments further comprising a first intermediate fragment and a second intermediate fragment, said first and second intermediate fragments each comprising at least one mutated codon of interest, a flanking nucleotide sequence and a digestion site .

(b) joining ends of said intermediate fragments to produce a linear product by fusion polymerase chain reaction;

(c) ligating of the linear product to create a circular product; and

(d) incubating said host cell with said circular product.

2. (Original) The method of claim 1 wherein said intermediate fragment containing said codon of interest comprises a forward and a reverse mutagenic primer comprising a desired mutation and a flanking sequence.

3. (Original) The method of claim 1 wherein said digestion site is an *Apa*I digestion site.

4. (Currently amended) The method of claim 3 wherein said forward digestion site primers comprises the polynucleotide sequence GTGTGT*GGGCCC*ATCAGTCTCACGACC (SEQ ID NO:7).

5. (Currently amended) The method of claim 3 wherein said reverse digestion site primers comprises the polynucleotide sequence GTGTGTGGGCCCTATTCGGATATTGAG (SEQ ID NO:6).

6. (Original) A vector for direct transformation of a host cell comprising

(a) forward mutagenic primer;

(b) a reverse mutagenic primer, wherein said forward and reverse mutagenic primers have an overlapping portion upstream and downstream of said mutagenic codon of interest;

(c) a forward digestion site primer;

(d) a reverse digestion site primer, wherein said forward and reverse digestion site primers each have a digestion site, said digestion sites fused at end to form a circular polynucleotide sequence.

7. (Currently amended) The vector of claim 6 wherein said forward digestion site primer comprises the polynucleotide sequence GTGTGTGGGCCCATCAGTCTCACGACC (SEQ ID NO:7).

8. (Currently amended) The method of claim 3 wherein said reverse digestion site primer comprises the polynucleotide sequence GTGTGTGGGCCCTATTCGGATATTGAG (SEQ ID NO:6).